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## JPRS Report

# **Epidemiology**

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## **Epidemiology**

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#### CAPE VERDE

Locusts Threaten To Increase Desertification 54000012a Maputo NOTICIAS in Portuguese 17 Oct 88 p 7

[Article by Luis Magalhaes]

[Text] Successive waves of locusts are invading the islands of Cape Verde and devouring everything that lies in their path, threatening to transform the country into even more of a desert than it is now.

On Friday [14 October 1988], Francisco Delgado announced to the LUSA agency that "the catastrophe is imminent." Delgado is the head of the Department of Plant Protection, which, in collaboration with the FAO, is trying to coordinate efforts to resist this "aerial invasion."

"He continued, "We have now been fighting against desertification and drought for 13 years."

In fact, one of the most spectacular achievements during the nation's 14 years of independence are the results of the annual campaigns to plant acacia trees—a species that is highly resistent to drought. And, in spite of the fact that only a small percentage of the 3 million trees planted after the first rains each year survive, they are already beginning to transform the landscape of Cape Verde.

Many forested regions are already self-sufficient in fuel (firewood), but that will cease to be the case if the plague of the "desert locusts" does not diminish within the next few days.

In the capital of Senegal, there is a helicopter for aerial spraying already in place. Using such a weapon against the locusts would be unheard of in Cape Verde. But it can be called into action only after a fly-over of the islands by a French specialist, whose arrival in Cape Verde is expected today, Monday [17 October 1988].

This method of fighting the locusts is running into two problems, however: The wind has been blowing at 15 meters per second (and spraying is advisable only when the wind does not exceed 3 meters per second), and the fact that human communities exist in the infested areas.

While the decision is being made whether or not to use an aerial attack, the unequal battle against the desert locusts is being waged on all the islands of the archipelago by teams armed with small sprayers—500 in all—as long as the 8 tons of chemicals in stock do not run out.

This plague has arisen at the worst possible time, now that this year's rainy season, which was shorter than it was the last 2 years, has ended and Cape Verde is really green. An invasion of locusts had already occurred once this year, in March, but it was less severe and the damage resulting from it was not significant.

This time, the plague was a possibility. But in spite of several threats during the previous weeks, the direction of the wind allowed Cape Verde to remain outside of the area of 27 million square kilometers of the African continent considered to be potentially at risk from locusts.

What happens is that, under certain conditions, the high pressure system from the Azores and the Sahelian low pressure system actually create a funnel that sucks up the swarms of locusts and shoots them in the direction of Cape Verde, on winds that blow from the northeast of the African continent.

The desert locust, also known as the peregrine locust, is precisely the most resistent species of the insect order Orthoptera.

With a favorable wind, these locusts glide along at a 3,800-meter altitude at the speed of the wind and can hold out for a week without stopping to eat.

In this way they reach the islands of Cape Verde in a few days, in spite of the fact that the archipelago is located more than 500 km off the coast of Senegal.

When they sight land from the air, they descend like airplanes, attacking the land and devouring everything green—even the bark of trees, causing them to die.

If they find a little moisture, the females lay eggs as many as three times, with 70 to 100 eggs at each laying, followed by a 12-day incubation period. During this incubation period, it is impossible to do anything to halt the plague since the eggs are buried and are practically invulnerable until the new generation hatches. The newly hatched locusts then take 5 weeks to grow to maturity.

According to specialists, each female gives birth to at least 250 new "devourers" each year.

The desert locust, reaching an average of 8 centimeters in length after these first 5 weeks of growth, during which it crawls on the ground and can therefore be easily attacked, takes flight at a speed that reaches 30 km per hour even with no wind, and continues eating until a new cycle of reproduction begins at the end of 8 weeks.

Francisco Delgado, visibly apprehensive, admitted to LUSA that there is a possibility that Cape Verde will have to appeal for aid to the international community in the face of what must surely be the most serious situation that this nation has confronted, at least since the black years of starvation in the archipelago (1942-1943).

In some areas along the coast of the country's four most heavily agricultural islands—Santiago, Santo Antao, Fogo, and Sao Nicolau—the nighttime quiet, which is normally rocked by the pounding of the surf, is now shattered by the awful din made by the jaws of the locusts.

#### **MOZAMBIQUE**

More Than 12,000 Children Immunized in Beira 54000012b Maputo NOTICIAS in Portuguese 30 Sep 88 p 3

[Text] Our reporters in Beira have found out that between the months of January and August of this year, more than 12,000 children were vaccinated in Beira against measles and tuberculosis, which reveals an increase in immunization against these diseases when compared to the same period last year.

Some 7,339 doses of BCG vaccine (for prevention of tuberculosis) have been administered to an equal number of children under the age of 1 year during that period, compared to 5,936 administered during the same period last year.

Meanwhile, the measles vaccine reached 5,178 children during the same period. Last year, 4,731 children were inoculated during the same time period.

However, the increase that has been registered is basically due to the consciousness-raising and enlightenment that the health brigades, supported by students and professors from some teaching institutions, have been performing regularly in various residence locales.

Elsewhere, the neighborhoods of Munhava and Manga are the ones that have had the greatest successes in this field. We should point out that the good organization evidenced by the base structures, through better monitoring of the brigades, as well as house calls organized more efficiently than had previously been the case, were instrumental in achieving this success.

#### **SENEGAL**

**Efforts To Combat Migratory Locust Invasion Detailed** 

Peasants Fight Plague 54000004 Dakar LE SOLEIL in French 27 Sep 88 p 3

[Text] It was at precisely 1800 hours on Sunday that the sky suddenly darkened over Louga. An enormous swarm of locusts had just filled the horizon.

By 1830 hours, thousands of insects were swarming over the treetops, coming in waves. The Departments of Louga and Kebemer had been invaded. The situation is alarming, although measures are being taken to fight the plague.

A crisis team headed by the governor met yesterday morning. Souleymane Bobo Vilane asked that all possible means in the region (DVPV-Woods and Forests, ONG [nongovernmental organizations]) be mobilized to meet the emergency, now deemed critical.

Peasants are lining up at the Plant Protection Directorate (DPV) where products are being distributed. The government has issued an order to draw on the national stock. Available Unimog trucks endlessly shuttle back and forth to infested areas. The head of the DPV, his eyes red from 3 nights without sleep, has stated that the fields must be saved. Since there are not enough Unimogs, the most urgent needs must be met. In other words, the locusts must be fought in the fields.

Other regions are starting to come to Louga's aid (Thies, Diourbel), but can this general invasion be fought only on the ground? Apparently not. The invasion is in fact too widespread. The crisis team has asked for intervention from the air. Damage to millet and niebe is already great in the areas of Coki, Sakal, Leona, and Gueoul. Some millet fields have been eaten down to the ground.

Peasants are fighting the insects day and night with the means at hand, motivated by the energy born of despair. Residents of Louga have been frustrated by the slow reaction at the central level. Since Friday, a dozen messages have been sent. Not until yesterday (Sunday) did some action finally begin. For the time being, only the Department of Linguere has been spared, but for how long?

Crops Destroyed in North
54000004 Dakar LE SOLEIL in French 27 Sep 88 p 3

[Article by Badara Diouf]

[Text] The acrid threat to our country and, by extension, the entire Sahel is very real. The Louga region and the Department of Podar, which we visited on Sunday to make our report, have enabled us to observe the extent of the invasion.

Everywhere we went, from villages near Ndioum in the Department of Podor to the territorial boundaries of the Louga region, dense masses of locusts have wreaked havoc in fields of millet, rice, sorghum, corn, niebe beans, colocynth seed, and market garden crops, destroying entire areas.

How many hours of effort and work were wiped out in one stroke by the seventh plague of Egypt? No one knows. Whatever the case, all along the roads one sees men, women, and children running in all directions armed with rags and even leafless branches, trying to prevent the insects from landing on the shoots.

And yet, while crossing the region of Louga Wednesday morning, heading for the cities and towns of the interior and the former river region, I was struck by the clemency of the weather this year. The fields were beautiful. The countryside seemed decked out for a celebration, awaiting the harvest season.

A green carpet stretched as far as the eye could see. A bucolic atmosphere invited one to stretch out on the fine grass and give way to reverie, providing a background for the slow movement of domestic animals peacefully grazing close to the villages.

But the atmosphere had already changed by the time we returned from Matam on Sunday. Some 30 kms from Podor, large swarms of locusts flying eastward crashed into our windshield, leaving their yellow muck behind. This continued through all the villages we traversed on our way home.

But it was even worse after we entered the Louga region near the village of Ngene Sarr at about 1800 hours. All the peasants responded to the call, mobilizing in all the surrounding villages, crisscrossing their fields until dusk with pitiful weapons, attempting to prevent the locusts from descending on the plants.

The few we were able to corner for just a moment at about 1945 hours spoke candidly about their despair over the invasion: "If they don't help us soon," one of them said, "we will lose everything. We are only asking for the means to keep the locusts from devouring our fields which, with the good winter season we have enjoyed everywhere, will provide us with a good living this year."

The essential problem for almost everyone, one forcefully emphasized, is to meet the most urgent needs, take the necessary emergency measures, spray and dust the fields before it is too late.

While awaiting more effective means, nightfall at least gave the peasants some rest until daylight, when they would again resume their ancestral methods.

The city of Louga has now been invaded. The entire region is on tenterhooks. As for the Thies region, it has not yet been affected by the plague, but how long will it remain safe?

Aerial Spraying Effort 54000004 Dakar LE SOLEIL in French 28 Sep 88 p 3

[Text] The Sahelian subregion is now facing a major invasion of locusts that has cast a shadow over hopes aroused by an excellent winter season. Abdallah Ould Soueid Ahmed, general director of OCLALAV [Joint Anti-Locust and Anti-Aviarian Organization], spoke at

length yesterday about a situation that has taken a dangerous turn in recent days, especially since "all the conditions exist for an aggravation of the acrid peril," he said.

The very abundant rainfall that fell on the Sahel this year has actually contributed to the hatching of more migratory locusts. These gregarious insects also produce large quantities of larva, creating a vicious circle. Confronted with such a situation, OCLALAV is coordinating action being taken by national agencies. It is also responsible for keeping an eye on how the situation develops and supplying the necessary information. To that effect, an information bulletin is published every week for all member countries. Intensive efforts are being directed at the so-called "front-line countries."

They include Mali, Niger, Mauritania, and Chad. It is actually in these countries that the migratory locusts hatch, develop, and then move on to other bordering countries. In other words, the problem can only be handled on a regional level.

This is why, at OCLALAV's prompting, aerial spraying is now being done by five Canadian planes along the borders between Mali, Senegal, and Mauritania. The situation is extremely serious in the latter country. "As long as the situation is not under control, Senegal will be invaded, whence the intensive efforts underway in that country," Ahmed noted.

And yet, OCLALAV action is rendered difficult by the fact that the products used are not remanent and have a limited effect in time (sometimes 24 hours), requiring a continuous effort. The EEC, in addition to other donors such as the FAO, Canada, and so on, has nevertheless promised to supply the pesticides.

Small planes seem the best suited to the situation, although "the use of larger aircraft is not ruled out," Ahmed indicated, stressing the fact that it is very difficult to fight the swarms of locusts and that the crucial effort is the one directed at the larva. "We must be able to prevent more locusts from hatching," Ahmed concluded.

#### **TANZANIA**

Swedish Study on AIDS Spread in Kagera Reported

54002420a Stockholm DAGENS NYHETER in Swedish 21 Oct 88 p 20

[Article by correspondent Anna-Maria Hagerfors, Arhusa, Tanzania: "HIV-Infection in Tanzania: Age of AIDS-Infected Persons Getting Younger"]

[Text] An extensive Swedish study shows that in one district in Tanzania over 40 percent of the people infected with AIDS are in the 25-34 age group. This is in Kagera, in the northwest of the country, close to the border of Uganda and Rwanda.

The study will now be extended with studies on how the AIDS has spread, which background factors are of importance, how sexual behavior affects it, and what efforts are needed to halt the epidemic.

Behind the study is the Swedish Advisory Board on Developing-Country Research [UF], Sareki, the National Bacteriological Laboratory [SBL], the Institutes for Epidemiology and Sociology in Umea, Roslagstulls Hospital, and the Laboratory of Immunopathology at the Karolinska Hospital in Stockholm.

The AIDS project in Tanzania began in 1986 with tests of blood donors and studies of HIV-infected children on a smaller scale.

The Kagera study covers a region with over 1 million inhabitants in the risk belt near Uganda and Rwanda. Spot checks were performed on 2,400 adults from the city and the environs, and 2,000 children up to the age of 14.

On the average, 12 percent were HIV-infected; in the cities 33 percent; 41 percent were infected in the 25-34 age group, and 21 percent of children under the age of 1.

So far, the study has cost 2.8 million kroner. It will now be expanded under the leadership of the coordinator, Professor Gunnel Biberfeld of SBL. Sarek is requesting 10 million kroner in the next 2 years.

Answers are being sought for these questions, among others:

- How do the most common venereal diseases affect the spread of AIDS?
- How is the disease transmitted from mother to child?
- How can information about AIDS be distributed through the pre-natal health care services?

The aforementioned Swedish institutions are cooperating with 10 research centers and laboratories in Tanzania.

Sarek is also conducting a study on HIV 2 in Guinea-Bissau—the special AIDS virus that is found in West Africa. So far, little is known about HIV 2, but it is believed that it is less dangerous than HIV 1.

Sarek is an independent office within the Ministry of Foreign Affairs. The ministry handles research contributions provided as Swedish aid. Sarek cooperates with 13 underdeveloped countries and has a 280 million kroner budget. Sarek recently received 60 million kroner from the government for research on AIDS and tropical diseases which are related to AIDS.

#### 2.5 Million Kroner Project

Even SIDA [Swedish International Development Authority] has increased its contribution for control of AIDS in Africa; 120 million kroner have been allotted this year. Of that amount, 70 million kroner go directly

to the World Health Organization's global AIDS program, the remainder goes to Ethiopia, Gunea-Bissau, Angola, Mozambique, Tanzania, Uganda, Kenya, Zambia, and Zimbawe.

SIDA also contributes to individual organizations' AIDS programs in different countries. This applies to the Red Cross, the Africa groups, and missionary efforts of various kinds.

The Red Cross is conducting an AIDS program in East Africa costing over 2.5 million kroner.

Save the Children operates an AIDS information service through maternity and pediatric clinics in Ethiopia, Sao Tome, and Cape Verde.

The Lutheran Aid supports the local churches' efforts in the fight against AIDS. In Tanzania, for example, the church runs a 5-year program which, among other things, includes 14 sets of testing equipment for AIDS from Sweden, as well as information campaigns and diagnostic equipment for hospitals.

#### **UGANDA**

Hospital Officials Discuss AIDS Situation 54002420b Stockholm DAGENS NYHETER in Swedish 15 Oct 88 p 6

[Article by correspondent Anna-Maria Hagerfors, Kampala, Uganda: "Every Fifth Person Operated on Is HIV Infected: Little Sisters Pray With AIDS Patients"]

[Text] How does a hospital function when every fifth patient on the operating table is HIV infected? When the money does not suffice for effective sterilization? When disposable rubber gloves must be used many times?

"My worst problem is not that I am afraid of being infected by the patients. My worst problem is whether I will ever find a man who is not infected," says Ugandan nurse Joy Kaylebara.

Joy works at the hospital of the Little Sisters, the Nsambya Hospital in Kampala. This is the next to the largest hospital in Uganda and is run by an Irish Catholic mission.

Nsambya Hospital recently received 762,000 kroner from SIDA [Swedish International Development Authority] to build a new operating department. But the money is not enough because of AIDS.

"The infection risk makes it more costly than we had anticipated. We need sterilization apparatus for instruments, linen, gloves, and operating gowns. We need 277,000 dollars to protect ourselves," says Miriam Duggan of the Little Sisters Franciscan Order.

She is the chief physician, the gynecologist, and surgeon, a woman who has seen it all; she has a dry sense of humor and is a dominant figure in the fight against AIDS in Uganda.

She does not seem particularly concerned that there are almost 1.6 million Swedish kroner needed. She seems to think that it will take care of itself.

From Miriam Duggan's total lack of stress, one understands that God has stepped in at the last moment many times.

When she sees us, the DAGENS NYHETER group, she begins to laugh:

"Well, my dears, so you are here also. Would you like a nice cup of tea? All you people seem to melt into one group of people. Yesterday it was the World Health Organization that wanted to study AIDS."

"No doubt, but you must get your own people to do that. We are exhausted from walking and we are all in," I said.

#### Overfilled

The hospital has 370 beds, but it is constantly overfilled. Last year, 150,000 patients were admitted. This year the number is higher. There is a constant lack of water and perpetual electrical outages.

Nsambya Hospital admits patients from a large area. People walk or drive in overcroweded buses for days to get here. Here they can get medicine, or so they have heard. That is seldom the case at the state hospitals.

Every other day, a patient dies from AIDS.

"The mortuary is not large enough since the AIDS epidemic began. We also need a refrigerating chamber. Sometimes it takes days before the relatives from the countryside claim the body. That is if they indeed dare claim it at all," says Miriam Duggan.

Nsambya Hospital is known for its care for AIDS patients.

Discretely, the AIDS clinic is called the Mobile Unit. That emphasizes that the patient will not have to be pointed out, and that he is not there to stay.

#### Home Visit

After several days of treatment, the AIDS patient is sent home with a promise of a home visit.

"Those who want to and are able to can come here every Wednesday afternoon," says the hospital's jolly and rotund matron, Maria Mukasa.

"Then we administer medicine and comfort. We also pray with them and they like that."

During the home visits, we give them medication that relieves the pain, vitamins and cocoa. If we have blankets and sheets, we take them along. Sometimes we have disposable gloves which we can give to the family if the patient bleeds much. We tell them that they should wash the gloves, hang them to dry and make sure that there are no holes in them.

"Toward the end, we go there three times a week. If they cannot sleep, we give them valium. The mental patients always receive tranquilizers," says Maria Mukasa.

#### Poor Affected

The worst thing is that we are unable to help financially. Imagine a father who has AIDS. He cannot work or pay the rent. His relatives are poor and live far away in the countryside. He has no money for food for the family or the children's school expenses.

"The Swedish Red Cross was here recently. Maybe they have money," says Maria Mukasa cheerfully. She is also convinced that when the goal is sufficiently worthy, God sends money.

We go to the laboratory. There we find Nellie Carvalho who does 300 AIDS tests a week on blood donors, suspected carriers, and sometimes concerned relatives.

"Every fifth person is infected. It is becoming increasingly more difficult to get people to donate blood. People do not want to know that they have AIDS."

"Besides, Africans believe that if they donate blood, they give away life and that they become weak," says Nellie Carvalho.

#### Glint in the Eye

"Do you know what I said to all the famous AIDS researchers at the Stockholm conference?" she says suddenly with a glint in her eyes.

Nellie went to Stockholm on a grant from the State Bacteriological Laboratory in Solna, SBL.

"Well, I went to the podium unannounced and said: The best thing you can do is to find an effective blood replacement medicine!

"It became totally quiet.

"Malaria has started up again, I said. That increases the need for blood transfusions for both babies and adults. We cannot afford 100 percent accurate HIV tests in Africa.

"You who have money and excellent laboratories, I said, find a replacement for blood!

"Do you know what they answered?

"It would be too expensive!"

"Nonetheless, I was interviewed by Radio Sweden," says Nellie with a broad grin.

#### Take Turns

Little Sister Miriam Duggan says that the staff takes turns applying for grants and going to AIDS conferences. She shows us around the hospital buildings which are spread out among blooming, light violet jacaranda trees.

We pass the hospitals vegetable garden and banana and papaya garden.

At the admittance office, people sit patiently in line. The speakers loudly provide AIDS information with thundering drums:

#### Danger! Danger! Danger!

The word danger is translated into different dialects before the information continues.

"The most difficult thing is to inform the middle class," says Miriam Duggan. They say: "Pooh, only poor people get AIDS."

#### 17-Year War

"I am convinced that the 17-year war has affected the spread of AIDS. Imagine all the rapes, all the blood transfusions and that people lived on the run for years."

"During the war, we worked night and day. Then AIDS sprang up and we had to continue to work day and night."

"Love with care!' is now written on posters all over Uganda. I do not believe in that," says Miriam Duggan.

"Previously there was the rule in African culture: If you are married to one person, be true to that person. If you are married to two people, be true to both.

"So we put out another slogan," says the Little Sister.

"Love faithfully!"

### Spread of AIDS Leads To More Open Discussion of Causes

54002415 Stockholm DAGENS NYHETER in Swedish 11 Oct 88 p 8

[Article by Anna-Maria Hagerfors: "Sex Now Openly Discussed in Uganda. AIDS Deaths Conquer Shame"]

[Text] Kampala, Uganda—You do not discuss sex in Africa. But the AIDS epidemic is now beginning to pull down all barriers.

Catholic priests are making wooden penises for lessons in how to put on a condom. And at one Catholic mission school in Uganda we hear the teacher say: "Don't kiss the sexual organs. In 1991 1 million Ugandans will die of AIDS if we don't change our sexual habits."

The pope would not feel at home and the Swedish member of the Red Cross who brought a wooden penis home from Ruanda to demonstrate how AIDS is being tackled was embarrassed while passing through customs.

Cute girl-soldiers wearing berets were standing there and opened his attache case.

Startled, one of the girls dropped the object on the floor. The other put her hands in front of her face and rushed out.

"Red Cross. AIDS-education," he tried in his best French.

#### **Receptive Teachers**

You do not discuss sex in Africa, so initially the teachers in Uganda were negative towards sexual education. They have now understood, however, that they must be open and realistic if they want to prevent the teenagers who are becoming sexually active from dying of AIDS. They are now wholeheartedly tackling the difficult task.

It is the UN's Childrens' Fund, UNICEF, that has begun an extensive information campaign in 7,000 elementary schools and 800 high schools around the country, aided by the World Health Organization, WHO, and Swedish money from SIDA (the Swedish International Development Association).

Similar projects are carried out in Ruanda and Burundi and several central African states have shown interest.

#### In the Risk Zone

We are sitting in a Catholic mission school in Nyenga in rural Uganda. Some 50 teachers are going to learn all about AIDS so that they in turn can educate both pupils and parents.

They are in their 30's and constitute themselves a sexually active risk group.

The lecturer, Bob Mugisha, starts by saying that we cannot be embarrassed. "We have to start calling a spade a spade. If nothing is done, 1 million of us will be dead by 1991. Uganda will become a country with nothing left but 10 year olds."

Embarrassed laughter and headshakes.

"There are probably many of us who are already infected."

Nervous laughter.

"In June this year we had 5,000 reported cases of developed AIDS. The numbers double every 4-6 months, so pretty soon there will be 10,000. Many more are infected, at least 140,000 in Kampala alone with half a million inhabitants."

#### 'They Have Died'

"If you want a nice house, move to the Rakai-district. There are lots of empty ones. All of the young ones have died."

"Who, then, is infected?" asks Bob.

"We are," says the class joker.

Raucous laughter.

"Yes, if we don't change our sexual habits, you can count on 80 percent of us becoming infected. All of us in this classroom might already be carriers of the virus."

The classroom becomes deathly still. A female teacher hides her face in her hands.

"Let us say that you are infected," Bob says to a teacher wearing a pink shirt.

"No, no," the teacher whispers and looks away.

"OK, let us say that I am infected. What are the symptoms?"

There are whispers of diarrhea and coughs.

#### Hysterical Laughter

Bob describes unexplained fevers, tuberculosis, rashes, itching, the skin cancer, Kaposi's sarcoma, brain disturbances....

A couple of male teachers laugh hysterically. The others take careful notes.

"How do you treat AIDS?"

"There is neither medicine nor vaccine," says the joker and coughs with laughter. A woman wipes away her tears.

"How is it spread?" Bob asks and puts up colorful wall-charts.

He talks about semen, vaginal secretions and blood.

"In our culture the shedding of blood is common during intercourse."

"But there are other ways of spreading the infection. When you go to the medicine man, he will cut slits in your skin so that the herbal medicines can enter your body. Perhaps he will cut you with the same razor blade that he used on 10 others. And when you women pierce your ears, make sure that the needle has not been in contact with other peoples' blood."

Bob holds up a chart with people of various aspects.

"Which one of these is infected with HIV?"

"The one who is coughing," says the joker, the tension is lifted and everyone laughs.

"The women with glasses, they look the slimmest," says a young woman.

"The answer is: none of them. You cannot tell from the outside. By all means do not presume that people with glasses have AIDS."

Then Bob tells about all those who look as though they have AIDS but do not necessarily have it. Undernourished people and children with measles.

"Don't spread rumors about them."

He describes how AIDS is not passed on:

"Play with the children. Touch each other. Hug your friends. But don't kiss any sexual organs."

Embarrassed laughter.

"What are we going to do with those who are infected? Many say: Isolate them. Kill them. Why should we give up food to them?"

"It would become very expensive, however, first to test and then to isolate hundreds of thousands of Ugandans. And all of you might have AIDS, still you are working and doing something useful."

"Do to the ones sick with AIDS as you would have others do to you. They need nourishing food and soothing herbal medicines. That will help them live longer."

"Stick to one partner and tell your pupils to refrain from sex until they are married. Any questions?"

"Is it true that they collect all the AIDS patients in the Western world and kill them?"

"No, they get the very best of care."

"Is it true that the virus leaked from a laboratory in the United States?"

"It is believed that it has existed in Africa for a long time, but something happened to make it aggressive."

"Shouldn't you give the men some kind of medicine to make them impotent?" a man asks helplessly. The classroom echoes with laughter.

"What are we going to do to keep our children from becoming infected?"

#### Crying Women

Two women are crying as we leave the teachers' class to go to the high school students who have gathered in the auditorium. In the verdant schoolyard there are swarms of little children in rose and turquoise uniforms, like butterflies.

Coarse teenage laughter and whistles can be heard in the auditorium. A sudden rain begins to spatter on the metal roof. The teacher has to roar to make himself heard:

"There are three places where you are at risk for the infection: the disco, the video arcades and the nightly prayer meetings,"

"I am pretty sure that you look at porno movies and then want to try out the positions of the whites. That's when you tell your parents: I'm going to the prayer meeting at the mission and then you disappear in the bushes with your girlfriend."

Delighted and embarrassed laughter and catcalls.

"We'll have to go to bed with 60-year-old ladies then. They are not infected," says one boy.

#### **Assaulted 8-year Old**

"Recently a principal raped an 8-year old girl," says the teacher. "All of the others have AIDS,' was his defense. Watch out girls, the men are beginning to move down through the age-brackets,"

"What about using condoms?" asks one of the boys.

"A condom is not a sure thing. AIDS is too dangerous to chance. Refrain from sex completely until you are married."

A 14-year-old girl raises her hand:

"I can't do that. I have to go to bed with my sugar daddy since he is paying for my education. And I want to continue my studies...."

## Health Minister Mentions Radioactive Contamination

HK2711085888 Beijing RENMIN RIBAO in Chinese 26 Nov 88 p 3

[Report by Ai Xiao (5337 4562): "Minister of Public Health Chen Minzhang Appeals for Stepped Up Measures Against Diseases, Elimination of Scourges"]

[Text] Beijing, 24 Nov—Today, speaking on the remarkable progress made by the country in the elimination of scourges and diseases, Minister of Public Health and Chairman of the National Patriotic Public Health Campaign Committee Chen Minzhang also reported some worrying situations.

Chen Minzhang said: According to a report dated 23 October this year and prepared by the Academy of Preventive Medicine on an analysis of the incidence and spread of 25 legally recognized infectious diseases, although the total number of occurrences in the country of these diseases from January through September was only 3,720,000 cases, a little less than last year's 4,140,000 cases, the incidence of intestinal infection diseases, such as typhoid fever, paratyphoid fever, and viral hepatitis, went up. For example, in Zhejiang, 2,090 cases of typhoid and paratyphoid fever were reported in 1985, 3,290 cases in 1986, and 6,290 cases in 1987. However, the incidence of these diseases continued to rise this year. The higher incidence of of intestinal infectious diseases shows that there are still many problems in our diet, environmental sanitation, and personal hygiene. Hepatitis A, which caused a great deal of trouble in Shanghai this past spring, bacillary dysentery, the incidence of which is usually high, and the Non-A-Non-B-type hepatitis, which has plagued Xinjiang on and off for 2 or 3 years, are caused by water contamination.

Although the spread of ophthalmia [hong yan bing 4767 4190 4016], a common disease that was prevalent this past summer, was quickly put under control, 1,070,000 cases were reported in Beijing, Tianjin, Shanghai, Guangzhou, and Hangzhou. This disease greatly shocked society and caused heavy economic losses. This shows that public sanitary conditions are poor and that people lack preventive knowledge.

Some infectious diseases that affect both humans and animals and that were once brought under control, such as snail fever, have spread again.

Many food poisoning cases have been reported over the past few years. This is related to the processing, packing, transportation, sales, inspection, and examination of foodstuffs. This is a many-faceted social problem.

Since nuclear technology is now widely and increasingly applied, we should pay close attention to the hidden perils caused by all types of nuclear contamination. According to reports prepared from January through October, there have been cases of radioactive contamination caused by improper handling of nuclear sources [he yuan 2702 3293].

Speaking on the "four scourges," Chen Minzhang said: According to some experts, there are about 3 billion rats in the country. The total amount of grain consumed by these rats constitutes 5 to 10 percent of the country's total grain output and is roughly equal to the total amount of grain the country imports each year. The rats damage young trees. In certain provinces 20 to 40 percent, and even up to 80 percent in some provinces, of their trees are damaged, and planting cannot make up for this damage. Rats spread epidemic bleeding fever [liu xing xing chu xue re 3177 5887 1840 0427 5877 3583]. From 1986 through 1987, over 170,000 cases were reported. From January through September 1988, 28,000 were cured. However, if we do not continue to kill rats, the incidence of this disease will go up again.

Shanghai has conducted a survey of 1,195 units belonging to 8 trades and discovered that 78.9 percent of them have serious cockroach problems. Even the hospitals are affected. However, flies and mosquitos are even more serious problems.

Chen Minzhang reminded people: If we do not pay closer attention to dealing with these worrying situations and to sanitary conditions, which are causing great trouble, epidemic diseases, endemic diseases, and food poisoning will get out of hand and run rampant. To eradicate the sources of diseases, all members of the community should make concerted efforts. We should vigorously give the whole nation an education in sanitation and public health in order to enhance their awareness of hygiene and public health and enable them to participate in handling environmental safety and health matters, which we rely on for our existence.

#### HONG KONG

Warning on Rise in Number of AIDS Carriers HK2511080988 Hong Kong SOUTH CHINA MORNING POST in English 25 Nov 88 p 1

[By Mary Ann Benitez]

[Text] There could be between 40,000 to 50,000 AIDS carriers in Hong Kong within the next five years unless firm public action is taken to encourage people to behave more responsibly, a government consultant said yesterday.

The warning came as government doctors revealed two new confirmed AIDS cases—one of them a haemophiliac.

There are a total of 53 haemophiliacs in Hong Kong who have been found to be AIDS carriers but yesterday's was the first announcement that a haemophiliac had developed the full-blown Acquired Immune Deficiency Syndrome [AIDS].

The two new cases bring the total number of AIDS patients in Hong Kong to 15, of whom 11 have already died.

All four surviving AIDS patients are being treated with the anti-AIDS drug, AZT, which prolongs survival but cannot cure the disease.

Another 113 people have been found to be AIDS carriers but none has shown signs of full-blown AIDS, that kills by destroying the body's ability to fight off disease.

Dr Yeoh Eng-kiong, chairman of the government's AIDS scientific working groups, said the disease presented a "real" problem in Hong Kong and there was no reason for people to be complacent.

Based on the present number of cases, there were likely to be between 300 and 400 patients suffering from the disease in the next five years and a further 40,000 to 50,000 AIDS carriers, he said.

"From the existing carriers of the AIDS virus, even if one of them spreads it to one person every year, just simple arithmetic will tell you that in five years, you can have 40,000 to 50,000 people infected," he warned.

But the disease could spread even more quickly if other sources of infections were taken into account, he said, introducing the Community AIDS Concern Week to begin on December 1, designated by the World Health Organization as World AIDS Day.

Dr Yeoh said a major obstacle in AIDS prevention was that many people who engaged in high-risk behaviour refused to recognise that they could be infected with the rivus. One sexual encounter with an infected person will result in a 10 percent chance of getting infected. Youngsters who abuse heroin can resort to sharing needles, another potential source of infection.

Dr Yeoh also did not think that mandatory screening for AIDS antibody or isolating infected individuals would work for Hong Kong.

"In time, they are going to cause a lot of problems in terms of questions of individual rights and other issues," he said.

Dr Yeoh said the stricken haemophiliac had been infected with the virus some time ago but he refused to reveal his age in order to protect his identity.

There are only about 150 haemophiliacs in Hong Kong, 53 of whom have been found to be positive to the AIDS antibody since screening for high-risk groups began in 1985.

Of those infected, 18 are children and young adults under the age of 17.

Many of the haemophiliac-carriers were infected by contaminated blood factor imported from the United States before safety measures were instituted five years ago.

Doctors were at pains to stress yesterday that the existing blood factor supply for haemophiliacs is safe from AIDS-virus contamination.

The head of the AIDS Counselling and Education Service, Dr Patrick Li, said the blood factor supplyw as donor-screened and heat-treated by manufacturers in the United States.

"There's no risk at all of contamination with the existing supply since 1985," he said.

#### **TAIWAN**

World's Highest Hepatitis B Infection Rate Charged

40060120 Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 25 Aug 88 p 5

[Text] Hepatitis B has become one of the most common illnesses in Taiwan, and its infection rate is currently the highest in the world. Statistics reveal that approximately 15 to 20 percent of the population are carriers of the virus. This figure indicates roughly 3 million people. In addition to posing a health threat to others, these carriers are also susceptible to chronic hepatitis, cirrhosis of the liver, and liver cancer. As many as 6,000 people in Taiwan die of liver illnesses every year.

#### **VIETNAM**

Destruction of Rice by Insects, Diseases Reported BK1611083588 Hanoi Domestic Service in Vietnamese 2300 GMT 15 Nov 88

[Text] According to the Vegetation Protection Department, 10th-month rice in the South is developing satisfactorily and has been harvested in some localities. However, the occurrence of insects and diseases is likely to intensify.

Throughout the South, as many as 100,000 hectares of this rice—representing some 8 percent of the total acreage—have been ravaged by brown planthoppers, white leafhoppers, cotton leaf rollers, stem borers, rice gall flies, and rice bugs.

It is forecast that in the next 10 days, brown planthoppers and white leafhoppers will continue to appear in abundance on 10th-month rice, especially in localities that have not satisfactorily taken precautionary measures, and stem borers and rice caseworms will gradually cause more harm. Also, rice bugs and brown leaf spot will cause more serious damage to rice plants than in the previous period.

The Vegetation Protection Department urges the South to actively spray insecticides to stamp out brown planthoppers, white leafhoppers, stem borers, and rice caseworms in areas with a high density of pest infestation, while promptly detecting and taking precautions against rice gall flies in the central coastal region and rice bugs and brown leaf spot in the Mekong River Delta.

In the North, rice caseworms have caused serious harm in the flood-stricken areas of Nghe Tinh, with a density of 10-12 insects per square meter, while the extent of limited but serious harm caused by army worms and brown planthoppers in some localities has reduced gradually. In a number of localities, winter crops and corn have been ravaged by stem borers, pleosphaerulina, and bedbugs.

#### **COLOMBIA**

New AIDS Measures Announced 54002004 Bogota EL TIEMPO in Spanish 25 Oct 88 p 8C

[Article by Ramiro Castellanos: "Prostitutes, Homosexuals Must Have Valid AIDS Card"]

[Text] For the first time in Colombia, a municipal official is taking the threat of AIDS seriously and has issued a resolution ordering male and female prostitutes in the area to have periodic examinations to determine if they are infected with AIDS.

The resolution, which went into effect immediately, was issued by the deputy mayor of Santa Fe, Ricardo Cifuentes Salamanca.

Cifuentes Salamanca is the same official who rounded up prostitutes and homosexuals downtown a few weeks ago to be examined for AIDS.

The roundup revealed frightening data which apparently led the mayor to issue more effective regulations, given these people's reluctance to go in for an examination voluntarily.

The measure establishes that all sexually promiscuous people in the third zone of Santa Fe are required to be scientifically tested for AIDS at least every 3 months.

These tests can only be done in laboratories and other sites regulated by the district Secretariat of Health.

The measure also requires owners of related businesses to place signs, in conspicuous places in the establishment and in each room, which refer to campaigns that the Bogota Secretariat of Health is undertaking to prevent the spread of the disease.

It also establishes that owners and managers of motels, boardinghouses, rooming houses, and similar establishments that are not supervised by the National Tourism Corporation must include, as part of the service charges, the cost of contraceptives to be provided along with other toiletries.

There must also be receptacles with sodium hypochlorite in each room for disposal of the used contraceptives.

Owners of bars, discotheques, and similar businesses who tolerate the presence of male or female prostitutes who have not had an AIDS test or whose tests have expired will have their businesses closed and large fines imposed.

These sanctions will also be applied to managers of the establishments. While AIDS cards are being made, health inspectors or the mayor's office will demand the results of the examination.

#### **EGYPT**

Health Ministry Tests AIDS High-Risk Groups 54004604 Cairo EGYPTIAN GAZETTE in English 8 Nov 88 p 2

[Text] The Ministry of Health is currently examining about 1,000 citizens per month to check their susceptibility to AIDS, stated Undersecretary of the Ministry of Health Dr Fathi Shibah. Categories which are most susceptible to the disease are venereal disease patients, drug addicts receiving treatment at clinics, professional blood donors, and patients of haemophilia.

So far, he said, about 20,000 of such cases have been medically examined and the results were negative. Egyptians who have undergone blood transfusion operations abroad are also being examined. Among these citizens, 23 cases proved positive due to transfusion of contaminated blood.

The ministry is also examining foreigners, especially those coming from countries where a large number of the disease carriers are found.

The ministry has modified its directives to examine foreigners residing for more than 15 days instead of 2 months provided that the examination takes place within 48 hours of arriving into the country.

Blood bags collected by blood banks will also be checked to make sure they are disease-free, said Dr Shibah, adding that although this process would cost much, the ministry is tryying to make funds and equipment available.

He further pointed out that circulars about the disease have been prepared in collaboration with the WHO regional office to be distributed to various bodies, especially harbours and airports.

#### **JORDAN**

Multiple Tuberculosis Cases Reported in Village 44044501 Amman AL-RA'Y in Arabic 19 Oct 88 p 3

[Text] Dr Shahir al-Faqir, president of the Anti-Tuberculosis Association branch in Ma'an District, stated that 25 persons in the village of Idlaghah were diagnosed as having tuberculosis, that 100 persons, mostly from this village, are now being treated, and that 200 people have been cured of this disease which may afflict some of them for the second time if their poor living conditions continue. He added that the incidence of this disease among the town's population of 2,500 people is very high when compared with the percentage of the disease in the kingdom as a whole, which is not more than 28 cases per 100,000 persons, i.e. half a case per 2,500 persons.

He pointed out that the branch made arrangements with the parent association to conduct an x-ray scanning of this population and has diagnosed new cases of tuberculosis, but that the survey did not include most of the population because of the difficulty of reaching their residences in this area of mountains and deep valleys. He made it clear that he considers the area of Idlaghah to be fertile ground for tuberculosis for a number of reasons, among them the poor health conditions, wretched poverty, poor nutrition, total ignorance of the most basic elements of life, and the fact that the people live with their animals in caves. In spite of this, the branch is able, with its very limited material resources, to offer monetary assistance and some clothing to the afflicted, and to conduct a health and social study in cooperation with the Office of Social Development in Wadi Musa to determine the extent of the spread of this disease.

Dr al-Faqir called for the establishment of a comprehensive health awareness campaign with the participation of various concerned parties, the improvement of the economic and social level of the population, and the provision of appropriate housing for those living in caves, in addition to efforts to support the Center for Chest Diseases at Ma'an Government Hospital to enable the center to fully carry out its obligations. He urged citizens to support and assist the association's branch so that it can accomplish its goals. He thanked the charitable institutions and organizations which help the association continue its efforts to combat the disease in its area of jurisdiction.

#### **DENMARK**

#### Politician Urges Setting Up AIDS Register as Cases Mount

54002426 Copenhagen BERLINGSKE TIDENDE in Danish 31 Oct 88 p 5

[Article by Henrik Larsen]

[Text] About 1,700 Danes are confirmed as HIV-positive carriers of the AIDS virus. The actual figure is probably somewhere between 5,000 and 7,000. In about 50 percent of these cases, the infection will develop into AIDS.

General practitioner Jorgen Winther, who is the Liberal Party's health policy spokesman, now wants a registration of the HIV-positive individuals. He has prepared a proposal for an HIV registry based on "voluntary action." If it is confirmed that a citizen is HIV-positive, he or she would be asked to agree to be registered voluntarily in a file by name and cpr [personal identification number] number.

If the person did not want to do that, the registration would be carried out anyhow, but only in a camouflaged manner. The HIV-positive individual's cpr number would be coded and the code would be kept in a computer. Thus, by asking for a cpr number, a doctor or hospital could find out whether that number had a code version in the machine, and consequently whether the patient was infected.

If a citizen is HIV-positive, his or her doctor would be informed automatically, Winther says, and the same applies to visiting nurses and surgeons.

"At present, one can have an HIV test carried out completely anonymously, and that means that many doctors do not know that a patient is infected. That knowledge may be important. For example, the doctor should take action immediately if an HIV-positive individual develops only quite general symptoms of infection. I have gotten many inquiries from colleagues who want better guidance on the AIDS epidemic, and that is a part of the background for my proposal," Winther says.

Winther put forward his voluntary registration proposal during the Medical Association's AIDS session on 30 October 1988. However, neither Radical Liberal Party member Kirsten Lee nor Conservative Party member Karen Hojte Jensen, who also attended, could accept the idea under any circumstances. What the attitude of Winther's own party, the Liberal Party, is still a bit vague. The proposal was presented at a group meeting where the attitude was preponderantly favorable, according to Ivar Hansen, the chairman of the group, but it was not decided that the Liberal Party would identify itself with a program of precisely that pattern.

Personally, Ivar Hansen thinks that the idea is good enough "if it can be shown that it will provide better results."

#### **GREENLAND**

#### **Increasing Concern Over Potential AIDS Crisis**

12 Confirmed HIV Cases

54002414a Copenhagen BERLINGSKE TIDENDE in Danish 1 Oct 88 p 4

[Text] There are now 12 people in Greenland who have tested HIV-positive. The first infected people in that country were found in 1985, and since then the number has slowly increased. Of the 12, only one has developed AIDS.

Awareness Campaign Ineffective 54002414a Godthaab GRONLANDSPOSTEN in Danish 7 Oct 88 p 6

[Unattributed article: "Fighting AIDS: Government Asked What It Will Do To Fight AIDS and Other Venereal Diseases"]

[Text] Member of Parliament Henriette Rasmussen (Inuit Ataqatigiit) asked the Government on Wednesday, 5 October if it would soon launch a real attack on AIDS and other venereal diseases. She based her request on the fact that the educational campaign against AIDS has not resulted in any changes in sexual behavior among the population. In connection with this, the spread of other venereal diseases has continued to grow, in comparison with the past.

The representative of Parliament for Social Affairs, Moses Olsen, stated in his reply that approximately 1,500 persons had gonorrhea in 1987, and that the number of syphilis cases was over 200. In the first 6 months of 1988, the number of gonorrhea cases decreased to a little less than two-thirds of the previous figure; the number of known syphilis cases was cut to less than half.

On that basis, Moses Olsen indicated that the educational campaign has had a beneficial effect in the fight against venereal disease. But he also believed that venereal disease continues to be more widespread than it should be, and said that for that reason preparations were underway for more active educational work.

Olsen further said that the Alcohol Council, which was a preventative authority under the home-rule government, was working on various preventative activities, and that "Rise Up," which was a preventative committee under the Danish Government, was also issuing pamphlets and undertaking other preventative work. Moses Olsen further stated that "Rise Up" had recently hired a bilingual journalist who would be producing informational material.

Henriette Rasmussen commented on this answer by saying that we did need to keep track of the high statistics on venereal disease, and that part of the current problem was that diseases of this kind resulted in fertility problems for many people.

**Prevention Effort Emphasized** 

54002414a Copenhagen BERLINGSKE TIDENDE in Danish 21 Oct 88 p 2

[Article by Jens J. Kjaergaard: "AIDS Researchers: Prevention Very Important in Greenland; Dr Mads Melbye To Defend His Dissertation Today, on the History of the HIV Infection"]

[Text] If you hop into bed with a lot of different sexual partners, aside from the danger of gonorrhea and other venereal diseases, you are also running a greater risk of contracting AIDS. This was the statement of Dr Mads Melbye, senior fellow of the Cancer Society, soon to be awarded a doctorate in medicine.

Today, in the Anatomical Institute at Aarhus University, he will be defending a dissertation on the causes of the disease, titled "The Natural History of Human Immunodeficiency Virus Infection (HIV)."

Today millions of seemingly healthy persons are infected with HIV, the virus which apparently can lead to AIDS.

Mads Melbye recommends a forceful prevention program in Greenland. We Danes will bear a great deal of the responsibility, if the disease spreads like wildfire—and we have to remember that an epidemic in Greenland could also have disastrous results on the Danish economy.

The epidemic has arisen quite recently, not only in the United States and Europe, but also in Africa, according to Dr Mads Melbye.

AIDS may have arisen in Africa some 40 years ago, perhaps with a naturally occurring mutation in a previously harmless infectious germ from small green monkeys, Mads Melbye said, referring to new reports from scientists at Harvard University in Boston. The virus under discussion divides very fast—and during this process, "error codes" often occur, similar to those that precede many types of influenza.

Mads Melbye's own research was begun in 1981, in cooperation with Peter Ebbesen in Aarhus and with the American Robert J. Biggar. Their points of departure were the first frightening reports concerning an epidemic among American homosexuals.

The researchers chose a group of 259 homosexual Danes and compared them with the Americans, in order to find out whether differences in their lifestyles could account for the fact that the disease was more widespread in the

United States. It soon became clear that many of the Danish and American gays had been exposed to an infection which broke down their natural immunity against infectious illnesses.

By taking blood samples from 1981, '82, '83, and '84 from the deep freeze, Melbye and his colleagues were able to show that patients with AIDS had previously had HIV in their blood. Relations with American homosexuals and anal sex constituted particularly risky behavior. By 1981, 9 percent of the 259 Danish gays under research were already testing HIV-positive. This was much higher than in other European countries. Today many of them have a fully developed case of AIDS.

Mads Melbye and his colleagues also found that one-half of a group of hemophiliac patients in Aarhus had the antibody in their blood.

## Island Authorities Concerned Over Loss of Doctors

Seven Resignations in 1 Day

54002414b Godthaab GRONLANDSPOSTEN in Danish 28 Sep 88 p 16

[Article: "Doctors' Flight Now a Fact: Seven Doctors Resigned This Morning; Health Authorities Expect More Resignations"; first paragraph is GRONLAND-SPOSTEN introduction]

[Text] "Doctors' flight" has become a fact. This morning the health authorities at the government office in Nuuk received resignations from seven doctors who do not wish to work under the new agreement. This is the equivalent of over 10 percent of the doctors quitting their jobs in 1 day.

Chief of Administration Ebbe Eigaard, at the government office, told GRONLANDSPOSTEN that the resignations started to come in by telex this morning, and that it had already added up to seven resignations by the time the office had been open for 2 hours.

"It is clear that the doctors who want to resign are interested in getting their resignations in before the 1st of October, so that they will go into effect with the new year," says Ebbe Eigaard, who is afraid there will be more resignations throughout the rest of the day, as well as in the remaining days in September.

#### **76 Positions for Doctors**

The current number of doctors' positions established under the Greenlandic Health Authority is 63.

But the negotiations leading to the agreements which the doctors are now protesting with their resignations allow for an increase in the number of established positions. There is talk of a total of 13 new positions—nine on the coast and four at Queen Ingrid's Hospital. These new

positions would be effective 1 January 1989, which means that from that time on the Health Authority would have 76 established doctors' positions.

The municipalities that will experience an increase in number of doctors are the following: Paamiut, Nuuk (doctors' clinic), Maniitsoq, Sisimiut, Aasiaat, Ilulissat, Uummannaq, Upernavik, and Ammassalik. In all these locations, it is said, the hospitals will be granted one more doctor's position.

Ebbe Eigaard has no immediate announcement concerning a solution to the current condition of conflict.

"It is certain that we have a problem here," he says.

**Result of Budget Trimming** 

54002414b Godthaab GRONLANDSPOSTEN in Danish 30 Sep 88 p 8

[Editorial: "Expensive Doctors"]

[Text] You could get bitter about these doctors, these pampered, highly-paid Danes, who sneer at their Greenlandic patients because they cannot get enough of them.

If you read the agreement that they are now using as an excuse to flee Greenland, you read about raises of some 2,600 to 4,800 kroner per month, new retirement compensations, and various new doctors' positions, so that they will not be overworked.

Why are they so pampered? one might ask. If it had been lawyers, economists, or other specialists—even journalists—people would just have shrugged their shoulders and said, "No one is indispensible." But doctors have always been more or less indispensible, since their work often involves life and death.

But it does no good to come up with bitter moralizing statements. There is a price set on life and death, and there is a price set on doctors. Ironically enough, what is causing the problem here to a great degree is the highly-praised concept of Nordic cooperation. Norway and Sweden have—just like Greenland—not invested enough in training their own doctors, and so they pay sky-high wages to get Danish doctors in places like northern Sweden and northern Norway—and people are glad and thankful enough that they are willing to come.

In addition, the Greenland Health Authority—which owes its structure 100 percent to Denmark's Greenland policy—finds itself facing the Government's hard cutbacks in the Danish health system in Denmark, where they are now considering initiating paying customers.

But in Denmark a patient can drive to a practicing physician, to private clinics or to another hospital. You cannot do that in Greenland. The Greenlandic patient is stuck in his home town, and Denmark has to pay the price for the doctors in the towns. The Government seems to be flexing its muscles, trying to create a conflict between doctors and patients. The fact is that the Government must realize that it cannot live with even one Greenlandic death that can be blamed on the fact that it [the Government] will not pay the cost of having doctors in Greenland. The issue is not whether the doctors are pampered or not, but whether the Greenlandic population will get reasonable medical services.

**Doctors' Association Chairman Comments** 54002414b Godthaab GRONLANDSPOSTEN in Danish 3 Oct 88 p 8

[Article: "Doctors' Reaction Out of Proportion; Chairman of Greenland Doctors' Association Finds the Discussion 'Too Desperate'"]

[Text] It does not make sense, if you are dissatisfied with a negotiated agreement, to stir up uneasiness concerning patient treatment in Greenlandic hospitals.

"I do not think that there is anything happening in Greenlandic hospitals which cannot bear the light of day, or which differs particularly from what you would find in Danish hospitals," the chairman of the Doctors' Association in Greenland, district physician Lars Johansen, Nanortalik, told GRONLANDSPOSTEN. We had asked him why it was at this point, when doctors are dissatisfied with an agreement, that it had suddenly come out that patients were dying under the hands of their doctors in Greenland.

"I see it first and foremost as en expression of the fact that more doctors in Greenland are desperate over the situation that the Health Authority finds itself in," he said.

Lars Johansen further said that he was convinced that whatever irregularities might occur in hospitals would be investigated by the surgeon general, and that the relevant authorities, such as the police, would be brought in if it proved necessary.

"I believe that patients are just as secure in Greenlandic hospitals as in Danish ones," he said.

#### Training

Lars Johansen told GRONLANDSPOSTEN that what ought to be discussed were doctors' working conditions and training opportunities.

"It is clear that many doctors in Greenland find themselves under far too much stress. I see only one solution for all these resignations, namely, that the authorites take a closer look at the interpretations of this new agreement," he said. GRONLANDSPOSTEN: You have been given 13 new positions for doctors, increased salaries, and more compensatory Fridays for when you work on days that you ought to have off—isn't that enough?

"The main problem is not salaries—although that is important enough, if we are going to entice more doctors to Greenland over the next 6 months. I believe that the main problem is that doctors want to have reasonable work hours. Not necessarily a 40-hour work week, but a reasonable guarantee that they will not have to work around the clock. Besides that it is important for us to have the right to further training, so that all the doctors are sufficiently trained and are given the opportunity to follow new developments," Johansen said.

#### Careers in Denmark

Lars Johansen also recognized that one of the problems involved in getting doctors to Greenland is that is does not count towards one's success in Danish hospitals if one (for example) has been a doctor in Greenland for 5 years; and it may even count against it.

"The career system in Danish hospitals is a hard one, with a lot of competition, and having worked in Greenland does not count. The problem has been analyzed by a committee organized by the Minister for Greenland; both the Minister of Health and the Health Authority could help on this," Johansen said.

In Norway, for example, they have solved the problem by changing the way seniority is determined, and by cutbacks in the privileges offered to individual doctors.

"If our current crisis in the Greenlandic health system is to be solved, what we need is that together the employer—the government—should come up with some ideas about what the future should look like. Solutions need to be found that fit the Greenlandic situation, and which make it attractive for Danish doctors to take on the many tasks involved in the Greenlandic health system," he said.

GRONLANDSPOSTEN: Why has the General Danish Doctors' Union approved an agreement that its members will not accept?

"I do not believe that there was another option. The alternative was to strike. Now we have shown our employers that we would like to come to an agreement, and now the employers will have to take a position relative to the fact that the individual doctors will not work under the conditions that their employers have insisted on," Johansen said.

## Impact on Copenhagen Hospital 54002414b Copenhagen BERLINGSKE TIDENDE in Danish 7 Oct 88 p 5

[Article: "Greenland Health System Expensive"]

[Text] The Greenlandic health system has been more expensive this year than had been planned for in the budget, and it has used the Government Hospital in Copenhagen more than had been expected. Minister of Health Elsebeth Kock-Pedersen (Liberal) wants to have a meeting with Greenlandic Government Chairman Jonathan Motzfeldt concerning the increase. He is afraid that there will be further increased use of the Government Hospital, since many doctors in Greenland are resigning.

#### FEDERAL REPUBLIC OF GERMANY

Slower Growth of AIDS Epidemic Analyzed 54002412 Hamburg DIE ZEIT in German 23 Sep 88 p 80

[Article by Hans Schuh: "An End to Rapid Growth?"]

[Text] Talk about the "killer epidemic" called AIDS has markedly abated and this quiet trend will probably continue in the forest of publications and airwaves. Recently published epidemiological data are not well suited to satisfy the growing number of journalists with a penchant for catastrophes (bad news is good news), writers accustomed to sublimation in the form of dramatic reports. On the contrary, rates of newly registered AIDS patients point to restrained growth and reported human immunodeficiency virus [HIV] infections have remained almost constant for months. In any case, they are not increasing exponentially, as frequently predicted.

HIV tests on thousands of pregnant women and on more than a million blood donors are further proof that the dreaded explosive spread of the virus among the heterosexual population of this country is not taking place. More likely correct in the long run is the concerned prognosis of renowned London epidemiologist Roy Anderson that, "It will probably be difficult to keep the public interested in view of the very slowly developing heterosexual epidemic."

Meinrad Koch, director of the Berlin AIDS center of the Federal Public Health Office, does not want to go quite as far with his predictions as his British colleague. He distrusts all long-term prophesies and sophisticated computer calculations, preferring to rely on the extensive data flowing into the AIDS center. From these he concludes "that the massive penetration of the total population, which I and many others have feared, is not yet apparent."

As proof for this view, he notes several indicators, which—like a mosaic—are forming a complete picture. The number of newly diagnosed AIDS patients in the first half of 1988, for instance, will be well below 800,

which—in view of the earlier germination time of about 12 months—was the expected number of new patients since it had been 400 for the first half of 1987. Although late reports for the first half of 1988 are still expected from clinics throughout the FRG—the total number has climbed from 312 at the end of June to 384 by the end of July, and then to 416 by the end of August—a jump to 800 is virtually impossible.

This occurred despite the fact that the Berlin AIDS researchers had expected accelerated rather than decelerated growth for the first half of 1988. A new definition of AIDS had been introduced worldwide at the beginning of this year, which classified such additional symptoms as rapid loss of weight or neurological disorders in HIV-infected patients as typical of the disease. Confirmation criteria have also become less exacting than before. Analysis has actually shown that in the last semi-annual period more than 74 reported cases were based on the expanded definition, which means that they would have to be subtracted in a comparison with the previous year.

Physician Bernhard Schwartlaender, a close collaborator of Koch, still views the decelerated increase of patients afflicted with a weakened immune system with caution: "This may be a [statistical] artifact, triggered last year by the clinics' increased motivation to report. For those who can show many AIDS patients can count on more money and positions." Such prospects, which have now become rather unlikely, may well have lent wings to many a clinical "diagnosis" and, in a more dynamic rather than subdued public health environment, may have distorted the trend.

However, a mid-September report on the spread of the immune deficiency disease in Europe, released by the Paris AIDS center of the World Health Organization [WHO], supports the assumption that, similar to the trend in the Federal Republic, the trend in newly diagnosed cases of AIDS has also leveled off in several other countries. This applies particularly to France, Great Britain, Sweden, and the Netherlands. Remarkably flat growth curves are also shown by Portugal, Belgium, and Israel. Comparability is, however, limited since homosexuals and intravenous drug addicts are relatively rare among AIDS patients in these three countries. It remains to be seen whether the declining growth rate for the disease throughout Europe will in fact persist for an extended period.

There are still great differences for the most vulnerable groups in individual countries. While drug addicts make up the bulk of those afflicted in Italy or Spain, in Great Britain, France, the Netherlands, and the Federal Republic it is homosexuals, but in Belgium it is heterosexuals. The land of the Flemings and Walloons has a tradition of good relations with Africa and many AIDS patients come from the Black Continent.

A clear indication that AIDS is penetrating the heterosexual population in the Federal Republic would be a rapid increase in the percentage of ailing or infected women since here men clearly dominate the AIDS statistics. However, whether already ill or merely infected, no significant increase in the percentage of women can be observed in either group. Although the rate of AIDS-afflicted women is slowly rising here, this constant trend can be traced almost entirely to intravenous users of drugs (about 40 percent of them are female) or to unaddicted female partners of drug addicts. Among newly reported cases of HIV infections the ratio of women has remained almost constant since 1985.

Nor do reports on newly diagnosed AIDS infections suggest an exponential expansion of the epidemic among the total population. Since the beginning of 1987 all positive HIV-confirmation tests are registered anonymously. An inexpensive search test is generally used in routine checks for the HIV. If this test is positive, it is followed by a subsequent examination with an expensive, sensitive, and very specific confirmation test. Only this test, if the result remains positive, is registered.

There were 6,831 positive confirmation tests during the first 9 months of last year. This corresponds to a monthly average of 759 cases. Since October 1987, a monthly report is required. A listing of the monthly data received so far shows an almost constant trend; there is at least no alarming increase.

Since the outbreak of the epidemic a total of 30,779 confirmed positive tests have been reported to the Public Health Office, which—after eliminating recognized duplications—was reduced to a net of 21,392. These "conclusive" tests were preceded by many millions of search tests, the exact number of which nobody knows. Because of lack of precise information on the total number of basic tests, the constant monthly flow of reports of confirmed infections is very difficult to interpret. It is known from some large laboratories that the use of search tests has recently increased; however, the relative frequency of discovered infections has decreased. A country-wide survey, on the other hand, is still lacking.

The correction of registered numbers to weed out duplicate, triplicate, and multiple reports is causing epidemiologists severe headaches. All previous experience indicates that in time HIV-positive people tend to seek renewed confirmation of the information about their infection. It is known that one infected drug-injecting woman has had herself tested 40 times [as published]—an extreme case to be sure. However, one must assume that with each change in doctors, the newly-visited doctor will order a confirmation test before starting his treatment—his duty to be conscientious requires it. If the laboratory is not notified that this is a known infection, it will report a "new" infection. Although the virologists of the Free University of Berlin, who check the laboratory data under the direction of Karl-Otto

Habermehl, try to eliminate duplicate reports, the strict confidentiality of data and vague personal information severely restrict control opportunities. The official figure of 21,392 infections is, therefore, probably too high.

On the other hand, since an unknown number of infected persons have not yet requested to be tested, vigorous speculation will continue whether the total number of virus carriers in the FRG is 20,000, 30,000 or 100,000. All allegedly precise estimates come from an empty belly and should be taken no more seriously than occasional winds escaping from the same source.

The analysis of thousands of blood tests of pregnant women, on the other hand, represents solid epidemiology. The willingness of future mothers to be tested has significantly increased. For precise information on the status of their immune system is not only in their own interest and that of the medical personnel involved in the delivery but can also affect the baby's chances of survival. After all, according to recent discoveries, just under two-thirds of newborn children have a chance to avoid infection by this mysterious virus, despite the mother's HIV infection and despite their intensive 9month-long contact with her. However, an unsuspecting infected mother may infect the baby after birth by breast feeding since the digestive tract of a baby does not break down food and the viruses contained therein nearly as effectively as that of an adult; the danger of infection is, therefore, greatly increased.

Known results of tests on over 20,000 pregnant women have so far shown no indication of rapid HIV penetration of the heterosexual population. Of 11,000 expectant mothers screened in the Stuttgart metropolitan area, nine were shown to be infected. Seven of them belonged to the high-risk group of intravenous drug users, one women testified to frequently changing sex partners and the ninth was infected with HIV-2 (contacts to Africa). The state medical research office in Berlin has conducted tests on 1,248 pregnant women; only one proved to be positive. A Free University of Berlin study discovered one infected women after 3,600 tests. Her partner was an addict.

Considerably more infections were found by the Berlin Universitaets-Frauen Klinik (UFK) [University Hospital for Women], which also cared for women belonging to high-risk groups. Nine out of 2,754 tests were positive. A UFK inquiry to Berlin hospitals revealed a total of 88 pregnancies of HIV-positive women in 3 and ½ years. Only 11 of these pregnant women were not part of the drug scene. Since 1986 the number of gravidities has been nearly constant at about seven per quarter; the percentage of abortions has increased sharply.

Aside from Berlin, Hamburg and the metropolitan area of Frankfurt also count among the citadels of AIDS in the Federal Republic. In both cities, however, HIV tests on serums of 2,000 pregnant women each were negative—not a single one was infected (MUENCHNER MEDIZINISCHE WOCHENSCHRIFT, No 17/88 p

328). In such states as North-Rhine Westphalia, Lower Saxony, the Rhineland-Palatinate, or Schleswig Holstein the ratio of AIDS cases per 1 million inhabitants is 10 to 20 times lower than in Berlin, Frankfurt, or Hamburg.

A clear indication, contradicting the presence of the oft-conjured up danger of rapidly spreading AIDS among the heterosexual population, is also contained in a report on the "Epidemiology of the HIV among blood donors in the Federal Republic of Germany" by Bernhard Kubanek and others (DEUTSCHE MEDIZINIS-CHE WOCHENSCHRIFT, vol 113/88, p 1383), which was published 9 September [1988]. In the period from July 1985 to December 1987, according to the report, the blood-donor service of the German Red Cross tested 5.6 million donations from 1.6 million donors. In this period only 210 donors tested "positive" and even this number was scaled down after follow-up tests. It is striking that the total ratio of identified positive donors is clearly declining. From 1985 to 1986 it declined from 10 to 4 per 100,000 donors, to 2 by 1987 and, finally, for the last quarter of 1987, to 1 per 100,000 donors. There are several reasons for this trend. On the one hand, the donor service tried to discourage all members of highrisk groups from giving blood by educating them and immediately excluded newly discovered infected persons; on the other hand, there were probably many first-time donors, who had their blood drawn to become informed about their immune system. After anonymous tests were offered, these dangerously curious people largely disappeared. Finally, it appears that in the initial phase there were also false positives among confirmation tests, which artificially inflated the numbers.

The Kubanek report indicates that from a group of 210 positive donors, it was possible to retest the blood of 112 donors. "The second test confirmed the findings in 92 cases (80 percent). Arranged by time periods, the confirmation rate was 40 to 70 percent in the summer of 1985; it then rose rapidly to over 90 percent by the beginning of 1986 and was almost 100 percent in 1987."

Numerous human dramas probably hide behind these sober figures. They also show the great unreliability in the initial phase even of confirmation tests; and they may explain some of the hysterical outcries concerning the alarmingly high rates of infection which were erroneously "discovered" by still unreliable search tests in Africa and elsewhere.

Also interesting is a categorization by sex and age of retested donors, whose infection was confirmed twice: 15 percent of them were women and 85 percent men. The age distribution also corresponded largely to the usual pattern of AIDS patients. Ninety percent of those testing HIV positive were classified as belonging to known high-risk groups or had contact with such groups.

It is always pointed out, correctly, that blood donors are not representative of the population as a whole, especially since high-risk groups are deliberately excluded. On the other hand, they represent a good collective gauge which indicates whether HIV is spread rapidly through heterosexual contact or unwittingly. New infections are obviously very rare among blood donors, and there is no evidence of exponential growth.

In the meantime, one can also state with some confidence that many infected and afflicted persons, who allegedly have been infected heterosexually, have either suppressed their homosexuality or kept it secret. Thus, roughly 40 ailing men are included in Berlin AIDS statistics who call themselves heterosexuals. It is striking that in this group the frequency of Kaposi sarcoma, a type of skin cancer, is the same as that for homosexuals. "Kaposi sarcoma has been observed primarily in homosexual AIDS patients," explained Meinrad Koch. "It hardly ever occurs among intravenous drug users, bleeders, or recipients of blood transfusions who have AIDS. Why this is so, nobody knows. The suspicion arises that many 'heterosexual' patients are actually homosexuals. It is also striking that many more men than women give heterosexual contacts as the source of their infection. even though women very probably carry a greater risk of infection through heterosexual relations than men."

The fact that even in allegedly "highly contaminated" Africa the HIV can be present for decades and kill people but—for all practical purposes—not spread, is supported by a long-term study by a research team from Zaire, Belgium, and the United States, published in the renowned NEW ENGLAND JOURNAL OF MEDICINE (vol 318/88, p 276).

Deep in rural Zaire, between the towns of Kinshasa and Kisangani, a severe fever epidemic (Ebola fever) broke out in 1976, which killed several hundred victims. On this occasion many serum samples were drawn in several villages. In 1985, 659 of these old samples were retested for HIV. Five serum samples, corresponding to an infection ratio of 0.8 percent, proved to be positive. A subsequent investigation revealed that three of the five had since succumbed with symptoms which suggest AIDS as the cause. The other two, a 59-year-old woman and a 57-year-old man, were alive and well but remained positive.

A random sample of 389 persons, by chance taken in the same area, were voluntarily tested in 1986. As a result, it was learned that, despite the intervening time of 10 years, the same infection ratio of 0.8 percent prevailed. The three people shown to be infected were all women who had not (yet) infected their male partners. Of those whose tests had been negative in 1976, 90 were retested. Not one had become positive.

HIV tests on prostitutes in small adjoining towns, on the other hand, revealed a high infection ratio of 11.3 percent. From the constant low level of infections in the rural region and the high rate in the urban area, the authors of the study concluded that AIDS may already have been endemic in Africa for a long time and that the

traditional rural way of life was responsible for the low HIV-risk factor. Urbanization and the changing life style may have been important factors in the spread of AIDS in Central Africa.

Despite numerous indications that it is relatively difficult to transmit AIDS by heterosexual contact-gemination times of 8 to 14 years have been mentioned but are highly speculative—there are still sporadic articles even in responsible papers as, for instance, the one in the FRANKFURTER ALLGEMEINE ZEITUNG of 12 September on "AIDS in the Working Place." Here it is prophesied that: "It is no longer 5 minutes to 12, the hands of the clock continue to move steadily in the darkness at an ever-faster pace...30,000 German serum tests were positive, which—by rough estimates based on all past experience—should indicate the presence of 120,000 carriers of the virus who live and work among us, largely without being aware of their condition-... Today, in the early phase of the epidemic, AIDS is no longer a danger just to homosexuals and drug addicts since heterosexual relations have now become the primary means of transmission..." Behind these hair-raising assertions is a "German Foundation to Promote Health" with a project called "Partners in the Fight Against AIDS." According to the FRANKFURTER ALLGE-MEINE, the institute presents, "projects with a whole bunch of information sources," including "lectures by Michael G. Koch, a physician residing in Sweden (he is AIDS consultant to the Bavarian Ministry of the Interior)..." This "Swedish Koch" (not to be confused with Berlin's Meinrad Koch) is a notorious rabble-rouser who sometimes seems to be more interested in raising goose pimples among his audience or readership than in epidemiological facts.

These facts offer no substance for horror stories about an epidemic escalating in the darkness at an ever-faster pace, which brings public health and community services to the verge of collapse. Nor do they give reason to sound the all-clear signal. AIDS can undoubtedly be transmitted heterosexually. Several tens of thousands of infected persons just in the Federal Republic constitute a depressing liability and all possible steps must be taken to keep this number from becoming larger.

[Boxed item: In the FRG the number of "new" infections confirmed by control tests is relatively constant. Monthly reports have been issued since October 1987; before that time the monthly average of "newly" diagnosed cases was 759. The total number of people tested is unknown. Since the tests continue to be mostly anonymous, it is difficult to judge how many HIV-infected persons ask to be tested more than once. The ratio of newly uncovered "HIV carriers" among blood donors is clearly lower. This "trend" is caused primarily by more effective exclusion of donors from high-risk groups but also by false positives in tests conducted in the initial phase. Nearly unchanged in 2 and ½ years is the number of HIV-infected pregnant women who were admitted to West Berlin hospitals. Interrupted pregnancies are

increasing significantly. Only 11 of a total of 88 infected women were not from the drug scene. The semiannual report of newly diagnosed AIDS infections in the FRG also shows a flattened rate of growth. A similar trend is apparent in France, Sweden, Great Britain, the Netherlands, and—with reservations (see text)—in Belgium. The exact cause for this trend is still unknown.

#### **FINLAND**

## Authorities Encouraged by Trend in AIDS Case Statistics

54002409a Helsinki HELSINGIN SANOMAT in Finnish 7 Oct 88 p 14

[Article: "Teaching Young People About AIDS Intensifies in Helsinki; Fewer HIV Infections Than Supposed"]

[Text] Informing young people about the dangers of HIV infection is one of the measures which form part of Helsinki's AIDS strategy: among other things, a campaign to increase the use of condoms is being planned. All Helsinki students who have turned 14 are informed about the dangers of AIDS.

At the same time, public health officials in Helsinki can be satisfied with the current situation: the worst predictions of a yearly doubling of infections have not come true in the capital city region or anywhere else in Finland. We still have relatively fewer HIV infections and actual AIDS cases than the other Nordic countries.

Encouraged by the excellent results obtained in Copenhagen, Helsinki will shortly launch a campaign to explain the use of condoms and to determine whether condoms are easy to get and whether young people use them adequately. The information barrage is being directed at areas where as many young people as possible can be reached. Free condoms have also been promised.

According to Antti Ponka, director of Helsinki's public health watch, earlier campaigns have showed that AIDS education is no shock to young people, though some critical comments have come from parents. But most of the parents understand that the dissemination of information of facts is not an attempt to goad young people into early sexual relations.

#### Helsinki's Costs: 10 Million Markkas Yearly

The public health bureau in Helsinki has calculated that the prevention and treatment of HIV infections will cost nearly 60 million markkas during the next 5 years, or 8.4 to 14.8 million markkas annually. A solid three-fourths of this is earmarked for hospital care and medication, as well as research.

Then again, prophylaxis is thought to pay for itself. One AIDS patient costs society about 1.5 million markkas when, in addition to medical care, you include the roughly 1 million markkas lost from incapacity to work and premature death.

The public health bureau in Helsinki believes, however, that the number of new HIV infections will hold at no more than 50 annually—46 were detected in 1986, 43 last year, and only 24 by the end of September this year. According to public health officials, approximately every fifth resident of Helsinki has been tested for AIDS.

Throughout the country, 229 HIV infections had come to the attention of officials by the end of September. Thirty-seven of them are sick from AIDS. Twenty-one have died.

National Health Service Plans Large HIV Study 54002410 Helsinki HELSINGIN SANOMAT in Finnish 13 Oct 88 p 16

[Article: "HIV Survey Wanted To Obtain Accurate Picture of Infection"]

[Text] The National Health Service has made a plan through which an attempt will be made to obtain a clearer picture of the number of persons afflicted with HIV. If it is implemented the blood samples of polyclinic patients would also be tested for possible HIV infection.

The person presenting the plan, Docent Pauli Leinikki, said that one first aid clinic in the national capital region, where various kinds of people of all ages go, would be sufficient as a study site. The HIV test would be performed on patients from whom a blood sample was taken for one reason or another.

Identifying data would be removed from the samples, so that the person from whom the blood was taken could not be traced. In addition, the person visiting the first aid clinic would not know that an HIV test was performed with his blood. Leinikki emphasized that no blood samples would be taken just for HIV testing.

Several thousand samples would be collected, and this would be repeated every year. In this way a better picture of the development of the HIV situation could be obtained.

#### "Compulsory Tests Are Repugnant"

The purpose of the study is to improve the current HIV screening process. The screening studies already carried out in Finland provide a fairly good picture of the extent of HIV infection. According to Leinikki, however, it is possible that not all of the persons belonging to groups at risk have applied for voluntary testing.

"The are two alternatives for improving the screening: compulsory tests, which are extremely repugnant, or the English model, which has now been presented, of collecting samples in places where people come randomly," Leinikki said.

The first aid clinic would be a good study site in Leinikki's opinion. "It would not be sensible to take samples in places where most of those coming in are old diabetes patients, for example. All kinds of people come to the first aid clinic."

According to Leinikki the study would serve solely to clarify the spread of the HIV infection. In his opinion it is better that people themselves not know that their blood is being tested for possible HIV infection. People might get worried if they knew the HIV tests were being performed.

#### **England Source for Study Model**

It would be possible to begin the new kind of HIV screening next year at the earliest. "Before starting the study opinions would be requested from the ethical committee of the possible study site," Leinikki said.

"If the epidemic should turn out to be considerably more extensive than expected, there would be an effort to obtain people for voluntary tests. In addition, the possibility would also be discussed of having an analogous survey performed in such a way that permission would be requested from those being tested for using the identifying data," Leinikki said.

Similar kinds of random testing in which the patients do not have to identify themselves have already been undertaken in several countries, including England and Sweden.

"I do not believe that there will be strong resistance here either, since in the study it will not be possible to trace those being tested afterwards. The study serves only to clarify the spread of the HIV infection. These matters are always sensitive, however. For example, in England the study was preceded by lot of discussion in the newspapers," Leinikki stated.

"There is good reason to carry out the study in the Helsinki region, because most of those infected with HIV have been found in this area."

## **Epizootic Rabies Reaches Hame, Uusimaa Provinces**

Helsinki HELSINGIN SANOMAT IN Finnish 21 Sep 88 p 20

[Article: "Rabies Comes to Hame and Uusimaa Provinces"]

[Text] The first cases of rabies have been discovered in Hame and Uusimaa provinces. The State Veterinary Institute confirmed the cases early in the week. Although two provincial borders were crossed, the new rabies cases are nevertheless just 20-30 kilometers from the old disease area, the western section of Kymi province.

Uusimaa's first case of rabies occurred at Kuivanto in Orimattila, and Hame's first case in Nastola. In both provinces, the infected animal was a raccoon, says researcher Bengt Westerling of the State Veterinary Institute.

Altogether 34 cases of rabies have now been confirmed in Finland since early spring, when the first animals sick with rabies were found.

#### Raccoon in Henhouse

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Two days ago, a raccoon charged into a henhouse in Orimattila, 3 or 4 kilometers northeast of Kuivanto village. The animal was foaming at the corners of its mouth. The raccoon was shot and killed. Rabies infects only mammals.

Kuivanto is fairly close to the border of Hame province. "Although there's quite a bit of farmland thereabouts, there's also a lot of game. Rabies now seems to be spreading along the Selpausselka. So far we've been waiting for the disease to spread further south," says Westerling.

In the southeastern corner of Hame province, at Uusikyla in Nastola, a raccoon attacked a domestic dog. The raccoon was also shot and killed.

#### Vaccination Area Expanded

Both new cases of disease which came to light Tuesday were within the area designated for rabies vaccination, and they did not surprise officials much. The vaccination area embraces—besides the actual disease area—a precautionary region free of the disease around the disease area.

In Orimattila, the vaccination area is being expanded 5-6 kilometers west of Kuivanto and south of Villahde.

Bait vaccine will be distributed this weekend to the countryside; in western Kymi province, in eastern Uusimaa, and in the southeastern corner of Hame province. Friday evening, teams put together by hunting clubs will receive bait vaccines which will be distributed to the countryside on Saturday.

All the rabies vaccine doses in Finland will be sent out to the countryside over the weekend, i.e., the rest of the 3,000 vaccine doses which were set aside in case the disease spreads.

At western Kuivanto in Orimattila 2,000 doses are being used. The vaccination area has also been expanded east

of Kymijoki, because one case of the disease turned up last week at Oravala in Valkeala. The remaining 1,000 vaccine doses are being used in Valkeala.

Altogether 36,000 doses of bait vaccine are being distributed to the countryside.

#### Dogs Leashed, Cats Indoors

The Ministry of Agriculture and Forestry has ordered dogs to be kept on a leash and cats to be kept indoors from 24 September to 3 October so that household pets do not devour the bait vaccine intended for wild animals. During the same period, dogs may not be used for hunting, either.

Vaccines that might be found in the countryside should be left alone. They should not be tainted with the scent of humans.

Some 600 hunters were originally supposed to distribute the vaccines in the countryside. Because the vaccination area expanded, the number of voluntary distributors of vaccine has grown. Plenty of hunters have been found in the hunting clubs of the new vaccination areas, says Reijo Orava, head of the Uusimaa game preservation district.

It takes 2-4 weeks for the vaccine to be delivered. Additional vaccine has not yet been ordered. "No additional vaccine is being ordered at this stage," says Westerling.

The vaccine, manufactured in the Federal Republic of Germany, was shipped frozen to Finland. The vaccine has never been shipped such long distances before. It arrived at a temperature of -25BD C, which was a very good achievement, says a satisfied Westerling.

The bait vaccine has to be used before the cold weather sets in. Vaccine placed in the countryside does not suffer from a slight frost, but after refreezing the vaccine loses its effectiveness.

#### **Increased Number Have Died in Forests**

Altogether 34 cases have been confirmed in Finland since April. Seven of them were foxes, and 24 were raccoons. One badger, one dog, and one cat have also proven to be rabies carriers, says Westerling.

In addition to the cases which have come to light, a greatly increased number of animals sick with rabies have died in the forests.

The rabies vaccine is packed in an airtight tinfoil capsule. The capsule is placed in a piece of bait slightly bigger than a matchbox which is mixed with animal fat and fish meal. The angular clump looks like a dark-brown, nondescript, compressed mass of pulp.

It is still important for the population of small wild animals to thin out, according to the game preservation districts, because the bait vaccine does not reach all the small wild animals. The small animals population is now more than dense enough to permit the disease to spread.

The vaccination area, a good 2,000 square kilometers wide, embraces entirely or partially the following townships: Anjanlankoski, Artjarvi, Elimaki, Iitti, Jaala, Kouvola, Kuusankoski, Lapinjarvi, Liljendal, Loviisa, Nastola, Orimattila, Pernaja, Ruotsinpyhtaa, and Valkeala.

Next spring, the small wild animals of southern Finland will get new vaccines.

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